

**AN ANALYSIS OF CLASSROOM INTERACTION BY USING FLANDER
INTERACTION ANALYSIS CATEGORIES SYSTEM (FIACS)
TECHNIQUE AT SMPN 13 KOTA BENGKULU IN 2013/ 2014
ACADEMIC YEAR**



SKRIPSI

By:

FEBBY GARETSA PUTRI

A1B010004

**ENGLISH EDUCATION STUDY PROGRAM
FACULTY OF TEACHERS TRAINING AND EDUCATION
UNIVERSITY OF BENGKULU
2014**

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**Presented as Partial Requirement of Sarjana Degree of English Language
Education**

FEBBY GARETSA PUTRI

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FEBBY GARETSA PUTRI

A1B010004

Approved By:

Supervisor,

Co-supervisor,

Dra. Rosnasari Pulungan, M.A.
NIP. 19540323 198403 2 001

Drs. Barnabas Sembiring, M.Si
NIP. 19541126 198601 1 002

**The Dean of Faculty of Teacher Training
and Education,**

**The Head of Language and Arts
Department**

Prof. Dr. Rambat Nur Sasongko, M.Pd
NIP. 19540323 198403 2 001

Dra. Rosnasari Pulungan, M.A.
NIP. 19540323 198403 2 001

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FEBBY GARETSA PUTRI

A1B010004

Has been examined by the examining board of the English Education Study
Program of Faculty of Teacher Training and Education, Universitas
Bengkulu on June 23rd 2014 at Dekanat FKIP Building

Examined by:

Principle Examiner,

Examiner I,

Dra. Rosnasari Pulungan, M.A.

NIP. 19540323 198403 2 001

Drs. Barnabas Sembiring, M.Si

NIP. 19541126 198601 1 002

Examiner II,

Examiner III,

Drs. Imranuddin, M.A.

NIP. 19540912 198403 1 007

Drs. Alamsyah Harahap, M.Lib

NIP. 19600517 198312 1 001

Motto and Dedication

Motto:

Man Jadda wa jadda

Lot to improve. Be patient and for sure results will come! (Lorenzo)

Dedication:

With my greatest love and gratitude, this SKRIPSI is dedicated to:

- ❏ My lord Allah SWT and my prophet Nabi Muhammad SAW.
- ❏ My beloved parents, my father, Wuryanto, S.P., my mother, Subarni, S.Pd. Thanks for all your loves, prayers, supports, and everything.
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Bengkulu, 30 Juni 2014

Febby Garetsa Putri

A1B010004

Abstract

Putri, Febby Garetsa. 2014. *An Analysis of Classroom Interaction by Using Flander Interaction Analysis Categories System (FIACS) Technique at SMPN 13 Kota Bengkulu in 2013/ 2014 Academic Year*. Skripsi, English Language Education Study Program, Language and Arts Department, Education and Teachers Training Faculty, Universitas Bengkulu. Supervisor: Dra. Rosnasari Pulungan, M.A. and Co-supervisor: Drs. Barnabas Sembiring, M.Si.

The design of this research was observation. The objective of this research was to find out the percentage of the teachers' and students' talking time, characteristics, and their correlation during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year. The subject of this research was two English teachers at SMPN 13 Kota Bengkulu who had been teaching more than five years. The data were collected by observing 7 times class meeting at each teacher by using observation tally sheet, and recording by using audio recorder. Then, the data were analyzed by using Flander's formulates, and interaction matrix. The result of this research determined that for the teacher A at VIIC, teacher talk (66.15%), and students talk (33.10%). Besides that, for the teacher B, teacher talk (70.39%), and students talk (28.41%). It showed that the teacher talk was the most dominant classroom interaction during the observation. In addition, both teacher A and B, the content cross was the most dominant characteristics during the observation. The characteristics showed the correlation to the teacher indirect and direct talk that was the teacher spent talking time more in teaching and learning process to ask questions and lecture. From the result, the researcher concluded that the students were not active enough in the classroom interaction.

Keywords: classroom interaction, Flander interaction analysis category system technique

Abstrak

Putri, Febby Garetsa. 2014. *An Analysis of Classroom Interaction by Using Flander Interaction Analysis Categories System (FIACS) Technique at SMPN 13 Kota Bengkulu in 2013/ 2014 Academic Year*. Skripsi, Program Studi Pendidikan Bahasa Inggris, Jurusan Bahasa dan Seni, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Bengkulu. Pembimbing Utama: Dra. Rosnasari Pulungan, M.A. dan Pembimbing Pendamping: Drs. Barnabas Sembiring, M.Si.

Penelitian ini merupakan penelitian observasi yang bertujuan untuk mengetahui persentasi guru dan siswa berbicara, karakteristik, dan hubungan keduanya di SMPN 13 Kota Bengkulu tahun ajaran 2013/2014. Subjek penelitian ini adalah dua guru bahasa Inggris di SMPN 13 Kota Bengkulu yang telah mengajar lebih dari lima tahun. Data diperoleh dengan mengobservasi tujuh kali pertemuan tiap guru dengan menggunakan observasi cheklist, dan merekam dengan menggunakan alat perekam suara. Kemudian data dianalisis dengan menggunakan rumus dan matrik interaksi Flander. Hasil penelitian ini menunjukkan bahwa persentasi berbicara guru A (66.15%), dan siswa (33.10%), dan berbicara guru B (70.39%), dan siswa (28.41%). Dari hasil tersebut, persentasi berbicara guru menjadi paling dominan baik pada guru A dan B. Selain itu, karaketistik baik guru A dan B adalah content cross. Karaketristik tersebut menunjukkan adanya hubungan dengan persentasi berbicara guru baik secara langsung dan tidak langsung yaitu pada guru bertanya dan mengajar. Dari hasil tersebut, peneliti menyimpulkan bahwa siswa belum cukup aktif dalam interaksi kelas.

Kata kunci: interaksi kelas, katagory interaksi kelas dari Flander

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CHAPTER I

INTRODUCTION

1.1. Background

The use of English language in classroom interaction is important for English Foreign Language (EFL) students. For EFL students, classroom is an educational institution where they can practice the language. In fact, practicing English as a foreign language usually occur inside the classroom. When they are outside the classroom, they are rare to practice the language since they did not have partner to practice their English. Yuanfang (2009) states that English as a Foreign Language in the classroom do not have social function in EFL students' everyday life. It means that they will find difficulty to practice the language outside the classroom since they do not have partner to practice it in their real life. Therefore, EFL teachers have to give chance to the learner to practice the language in the classroom because it will increase their learning and improve their ability in communication.

Additionally, EFL students are required to practice the language in the classroom as possible as they could. Behnam and Pouriran (2009) claim that educational institutions would prefer EFL students practice English language than EFL students who did not practice the language in classroom. It means that the more they practiced, the more they had skill and self- confident in using the language. In fact, the purpose of teaching and learning the language is for communication. It is true that the educational institution really appreciate at the EFL students who practice the language. Besides that, Mouhanna (2009) contends

that using mother's tongue in the classroom was a controversial pedagogical issue. It means that many of EFL teachers do not ask the students to practice the language in the classroom. Consequently, it will make the teaching and learning the language meaningless. However, asking the EFL students to practice the language is important for them.

Incidentally, classroom interaction that was intended in this research was how the teacher and students participate to talk during teaching and learning process. In fact, according to Kundu (1993), Musumeci (1996), and Chaudron (1988) cited in Tuan and Nhu (2010), teacher talk is dominant in classroom interaction. Therefore, the researcher would like to analyze classroom interaction. Through the classroom interaction, the researcher would know the teachers' and students' talking time, characteristic, and the correlation of whether the amount of teachers and students talk contribute significant influence to the teachers' and students' characteristics or not.

Moreover, when the researcher observed some teaching and learning process at SMPN 13 Kota Bengkulu, the researcher found that the common interaction that occurred in the classroom was the students would participate to talk if the teacher initiated, encouraged, and asked them to talk. In fact, the type of teacher talk had great influence to make the students to talk in the classroom. That was the basic reason why the researcher wanted to know how much the teacher and students took time to talk during teaching and learning process.

Equally important, classroom interaction relates to teachers' teaching style that will determine the classroom interaction occurs in the classroom. Teachers' teaching style like teacher-centered will make the students passive in the

classroom since the teacher talks all the time. It means that the teachers do not give chance to the students to talk. In contrast, students-centered will make the students active since the teacher is as a facilitator. Making the students active related to the researcher's reason in choosing the topic of this research.

What's more, analysis EFL classroom interaction is appropriate by using Flanders' Interaction Analysis Categories System (FIACS). Flander technique is appropriate for analyzing the students' and teacher's talk at EFL context since the technique is to measure how much the teacher and students take talking during teaching and learning process. In fact, both EFL teachers and students are required to talk in the classroom. Besides that, Flander (1970, cited in Walsh 2006) divides *teacher talk* (accepts feelings, praises or encourages, accepts or uses ideas of students, asks questions, lectures, gives direction, and criticizes or uses authority), *students talk* (response and initiation), and *silence* (period of silence or confusion).

Because FIACS technique is to know how much the teachers' and students' talking time and characteristics in classroom interaction, according to Flander (1970, cited in Kia and Babelan, 2010), the researcher who wants to use FIAC has to do plotting a coded data with a constant time before putting the data into observation tally. It is intended for knowing the calculating and characteristics of the teachers and students talk in the classroom. FIAC suggests that the constant time referring to every three seconds. It means that the researchers who wants to use FIACS technique has to use every three seconds to decide which one the best category of teacher talk, students talk, or silence should be written down to put in the observation sheet.

Moreover, the researcher decided to set English teachers at SMPN 13 Kota Bengkulu in 2013/2014 academic year as the subject of this research. SMPN 13 Kota Bengkulu was one of SMP in Bengkulu that were rare observed by researchers. Besides that, the school was recommended by one of English teacher of favorite SMP in Bengkulu. The school was interesting for the researcher since the school is rare observed by researchers. Indeed, the researcher wanted to know how much teacher and students talk in the school that is rare observed by the researchers.

Furthermore, there were some previous findings about FIACS technique in analyzing classroom interaction. First, the research from Nugroho (2009) entitled “Interaction in English as a Foreign Language Classroom (A Case of Two State Senior High Schools in Semarang in the Academic Year 2009/2010)” found that 1) English teaching and learning process in both senior high schools were teacher centered, 2) the general characteristics of classroom interaction encompassed content cross, student participation, student talking time (STT), indirect ratio which was differentiated by the different number of percentage, teacher talking time (TTT), teacher support, teacher control and period of silence, and 3) characteristic of classroom interaction was significantly influenced by the type of talking time performed by teachers and students during the interaction. Last, the research from Nurmasitah (2010) entitled “A Study of Classroom Interaction Characteristics In A Geography Class Conducted In English: The Case At Year Ten of An Immersion Class In SMA N 2 Semarang” found that 1) the most dominant characteristic in immersion classroom interaction was the content cross (that most of the teaching-learning time was devoted to questions and lectures by

the teacher), 2) the teacher spent 57.43% of the teaching-learning time, while the students spent 22.20% of the teaching-learning time that showed that the students were active enough in the classroom interaction, and 3) the teaching effectiveness elements used in the classroom were in the form of academic learning time, use of reinforcement, cues and feedback, co-operative learning, classroom atmosphere, higher order questions, advance organizers, direct instruction, indirect teaching, and the democratic classroom.

Based on the explanation above, the researcher wanted to conduct a research entitled “An Analysis of Classroom Interaction by Using FIACS Technique at SMPN 13 Kota Bengkulu in 2013/2014 Academic Year”.

1.2. Statement of the Problem

Considering the good effect of FIACS technique for the teacher and students, the researcher wanted to do a research in order to find out the teachers’ and students’ talking time, characteristic, and the correlation of whether the amount of teachers and students talk contribute significant influence to the teachers’ and students’ characteristics or not.

1.3. Limitation of the Research

In this research, the researcher would only focus on investigating interaction that occurred between teacher and students in the classroom by using FIACS technique. The technique would improve the teacher’s teaching behavior and make the students participate to talk during the teaching and learning process.

1.4. Research Questions

This research was to answer some questions that would be investigated by the researcher. The questions that were addressed in this research were as follows:

1. How much talking time did teacher and students spend during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year?
2. What were teacher's and students' characteristics during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year?
3. What was the correlation between the teacher and the students talk time and students' and teacher's characteristics during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year?

1.5. Objective of the Research

Based on the problem of the research, the objectives of the research were as follows:

1. To find out the percentage of the teachers' and students' talking time during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year.
2. To find out teacher's and students' characteristics during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year
3. To identify correlation between the teacher and the students talk time and students' and teacher's characteristics during classroom interaction at SMPN 13 Kota Bengkulu in 2013/2014 academic year

1.6. Significance of the Research

It was hoped that the result of this research would be useful for the following:

a. For the teachers

It will help the teachers at SMPN 13 Kota Bengkulu in 2013/2014 academic year to get an evaluation of their talk percentage, know their characteristics, and the correlation between their talk and characteristics during the classroom interaction in order to they can improve their teaching behaviour.

b. For the students

It will help the students at SMPN 13Kota Bengkulu in 2013/2014 academic year to know their talk percentage, characteristics, and the correlation between their talk and characteristics during the classroom interaction in order to make them participate in the classroom.

c. For further research

For further research, the result of this research can be a reference as long as the technique as the same as this research.

1.7. Definition of Key Terms

To avoid misunderstandings of the research, the researcher needed to explain definition of classroom interaction and FIACS technique as follows:

- Classroom interaction is interactions between the teacher and students that occur in the classroom during the teaching and learning process. Dagarin (2004)
- FIACS technique is a tool research to improve the teacher's teaching style in order to make the students active in the classroom. Hai and Bee (2006)

CHAPTER II

LITERATURE REVIEW

2.1. Review of the Related Theories

2.1.1. Definition of Classroom Interaction

In Communicative Language Teaching (CLT), classroom interaction is really encouraged to occur in the EFL classroom. Classroom interaction will make the students interested in communicating at the classroom. Goronga (2013) asserts that classroom interaction makes the students participating in the teaching and learning process. It means that classroom interaction encourages students to involve.

Equally important, students are not the only participant in the classroom interaction since the teacher is also a participant. According to Dagarin (2004), classroom interaction is an interaction between teacher and students in the classroom where they can create interaction at each other. It means that classroom interaction is all of interactions that occur in the learning and teaching process.

In addition, classroom interaction will help students-students to share the information that they get from materials at each other. Radford (2011) maintains that through the classroom interaction, the learning process among students will occur since they will exchange their knowledge or understanding at each other. It means that classroom interaction make the students brave to share what they have known and learn at each other.

What's more, classroom interaction is not only about participation in the teaching and learning process and sharing their knowledge of a material at each other, but it is also about a relationship at each student to other students in the classroom. Khadidja (2009) insists that classroom interaction will make the students involve in collaborative learning because they talk and share at each other in classroom. It means that the classroom interaction will make the students have a good relationship at each other.

Moreover, through classroom interaction, the students will know how much their participation at the classroom, and the teacher will know their quality of taking time to talk. Besides that, classroom interaction is important for the teacher to evaluate their teaching style in order to they can change their teaching style. It means that classroom interaction will change the teacher teaching style like teacher-centered to the students-centered that is crucial for Communicative approach.

Further, classroom interaction is correlated to teachers' teaching style. Creemers and Kyriakides (2005) contend that classroom interaction is really related to the teacher's style. The correlation appears at the more the teachers use different teaching style, the more the teacher knows how to make the students involve in the classroom interaction. It means that the teacher is the key one who will make the students participate at the classroom interaction actively and purposefully.

Furthermore, classroom interaction has to be managed by the teacher. If the classroom interaction cannot be handled by the teacher, the students will be

uncontrolled and noisy. It will make the teaching and learning process fail. Besides that, a good classroom interaction depends on how the teacher gives chance to the students to talk at each other. Khan (2009) claims that classroom interaction contributes the students being active in the learning process. It means that when the teacher gives chance to the students to talk, the students will enthusiast to participate at the learning process.

Based on the explanation above, classroom interaction is all interaction that occur in the teaching and learning process where the teacher determine the interaction occur in the classroom.

2.1.2. Types of Classroom Interaction

Classroom interaction will occur if teacher and students interact at each other. Interaction that occurs in the classroom will be described depending on the dominant types of interaction. According to Abarca (2004), there are three dominant types of classroom interaction including teacher-dominated, teacher-centered, and students-centered. In teacher-dominated, the teacher takes much time to talk and the students do not have more chance to talk in the classroom interaction. In teacher-centered, the teacher controls the student to participate at the classroom interaction. Meanwhile, in students-centered, the teacher is as facilitator and the students are more active in the classroom interaction.

On the other hand, Dagarin (2004) contends that there are five types of interaction that occur in the classroom, as the follows:

a. Teacher-whole class

Teacher-whole class means that the teacher stimulates the students to talk, and the classroom interaction is controlled by the teacher. Tang (2010) contend that in most of the EFL classroom context, the teacher always initiates this type of classroom interaction by asking questions, and the students responds to the teachers' questions. It means that in teacher-whole class interaction, the teacher has to stimulate the students to talk by asking some questions orally.

Besides that, because teacher-whole class interaction is for stimulating the students to talk, the teacher has to use some strategy to make the students to talk. Rivera (2010) argues that there are three types of teacher-whole class interaction such as giving explanations, praises, information, and instructions. It means that teacher-whole class interaction is an important interaction for making the students to talk.

b. Teacher-a group of students

The common activity that is in this interaction is the teacher gives a task that has to be discussed in the group. It means that the students who are in group discuss what the teacher wants to do for them. In addition, interaction between teacher and group of students is like helping other students who do not understand yet at the discussed materials, and controlling the interaction in order to preventing uncontrolled classroom.

c. Student-student

This interaction facilitates the student to exchange information and ideas about the materials that they get. It will increase their learning since they do collaboratively. Rivera (2010) contends that most of interaction between student-student in EFL context is a dialogue where the students have prepared the dialogue to practice it in the classroom. It means that the most activity that acquires the students to do collaboratively in students' book is making a dialogue to practice it in the classroom. This activity requires the students to exchange their ideas or add some information to make their dialogue perfect that reflect real life context.

Besides that, the students who do not understand yet at trait materials can ask other students to answer or help them in understanding the material. It means that if the students do not understand, they will feel freedom to ask whatever he wants to ask since they interact at each other.

d. Students -students

This interaction will give advantage for the students since they will feel freedom to talk at each other. Ur (1996) insists that there are many patterns of classroom interaction, such as group work, closed-ended teacher questioning, individual work, choral responses, collaboration, teacher initiates and student answers, full-class interaction, teacher talk, self-access and open ended teacher questioning.

e. Students-teacher

This interaction will encourage the teacher giving information and feedback, and the students asking a question about material that they do not understand yet. Asking question is the most common activity that the students do for their teacher.

Based on the explanation above, the researcher concludes that the teacher has to use their role in the classroom maximally. It means that the teacher can make the students active in the classroom if the teacher initiates them by praising them, clarifying the students' opinion, asking question, giving direction, etc.

2.1.3. The Role of Teachers in the Classroom

Classroom interaction will depend on the dominant type of interaction that is from teacher and students talk. If the teacher gives chance to the students to talk, the classroom interaction will be dominant by students-students. Meanwhile, if the teacher always takes much time to talk in the classroom, the classroom interaction will be dominant by teacher. Ribas (2010) insists that teacher has great influence to make the students involve in classroom interaction. It means that students who are active in the classroom interaction are determined by the teacher's role that give chance the students to talk in the classroom.

Equally important, the teacher is the key one to create the classroom interaction. Damhuis and de Blauw (2008) maintain that the teacher's role will affect the quality of classroom interaction. The teachers' role is the teachers have to give chance to the students to talk in the classroom. The teacher is not admitted to take much time to talk in the classroom based on the communicative Language Teaching (CLT).

What's more, the main teacher's role in classroom interaction is to make the students participate in the classroom interaction actively. The teacher has responsibility to facilitate interaction effectively. Simich and Dudgeon (1998) mention that teachers' role in creating classroom interaction are as a participant at the classroom interaction and a facilitator to encourage the students to involve in the interaction. It means that the teacher has to be as a participation of the interaction in order to the students attracts to participate at the classroom interaction and has to make the students realize that they have to be active in learning process.

In addition, the teacher's role is related to the important factors in classroom interaction. Preston (2010) states that there are some important factors in classroom interaction that include input, turn-allocation and turn-taking behaviors, students' production, and feedback. In input, the students have to participate at learning process. The teacher's role at this factor is the teacher persuades the students to participate. In addition, in turn-allocation, the teacher efforts to make the students involve in classroom interaction where the teacher's role is making sure that all students involve in the classroom interaction. Meanwhile, in turn-taking behaviors, the teacher efforts to make the students involve in classroom interaction by asking them to ask questions, make requests or volunteer to answer. Furthermore, feedback is from teacher and students where one student answers what the teacher wants, the other students and teacher will give their feedback at the trait student.

Moreover, the teachers have to do some ways to make the students participate in the classroom interaction. Palmer (1998) mentions that there are

eight ways to make the students participate at the interaction by creating routine activities including encouraging the students to answer each questions that the teacher give to them; giving attention and chance to the students who raise their hand, even they are not asked to speak at the time, to explain their opinion; finding the students' strength to teach the low achieving students; asking the students who are shy in the classroom to speak at the classroom; responding and giving attention to what the students talk since the students want what they have talked are heard by the teacher; giving attention to the students who are work in group by asking them what they are doing and do not understand yet at the discussed material; asking the student to measure that they have the same understanding at each other at each materials by teaching their friends who do not understand yet at the trait material; asking the student to give comment at what the teacher's style.

2.1.4. Strategies for Helping Students to Involve in Classroom Interaction

Because the students have to involve in the classroom interaction, the teacher has to give the students tasks and activities that encourage them to participate at the classroom interaction. Moreover, creating classroom interaction is an important strategy for EFL students. Therefore, EFL teachers have to consider some strategies for creating classroom interaction. Kalantari (2009) mentions that three influential strategies in creating classroom interaction included questions technique, modification, and cooperative learning.

The first technique is question technique. It is an important part in creating classroom interaction because the teacher's questions have strong effect to them to participate. Most of the students have perception that the teacher's question will

make the teacher know who they are. David (2007) argues that questions will attract students' attention. Because it will create classroom interaction between teacher and students, a teacher must have skill in asking questions. There are three questions technique can be used by the teacher in creating classroom interaction that include procedural, referential and display question. First, procedural question is question for students' understanding. Menegale (2008) insists that procedure question is questions for managing classroom since the example of this question, including "Is everything clear? Any problems? Can you understand? Can you read?" This type of question will attract the students' attention and encourage involving in classroom interaction. Second, referential question is a question that the teacher does not know the answer. The students are required to produce their ideas orderly and choose appropriate words in order to the teacher know what they mean. Cullen (1998) argues that referential question is called a real communicative purpose because the teacher wants to listen to the students' explanation answer. The reason why it is a real communicative purpose is the students try to make the teacher understands what they have answered and explained. The types of referential questions are giving opinion, explaining or clarifying questions. Last, display question is a question that the teacher has known the answer. It is intended to check whether students understand the lesson or not. Shomoossi (2004) states that display questions include comprehension checks, confirmation check, or clarification requests. The question is just to answer the question because the teacher has known the answers. Each student tries to answer the questions until the answers are satisfied for the teacher. It will make them to participate at the classroom interaction. According to Tuan and Nhu

(2010), display question will increase the students' participation in natural conversation since the students try to answer the questions until the answers are satisfied for the teacher.

On the contrary, to make the students active in the classroom interaction, the questions are not only from the teachers' question, but it is also from students that is making a question for their teacher and friend in the classroom. According to Eison (2010), students' questions can stimulate student-teacher interaction in the classroom since the students are active, the teacher will be enthusiastic to support the students' activeness, identify which part of lesson they are still confused or misunderstanding, give explanation that the material of the lesson is important for them, and encourage student-student to collaborate. It means that the students' question will make them aware to create a question based on their need.

The second technique is speech modification by the teacher. Speech modification by the teacher is the teacher paraphrase or use simple sentence to make students understand what she explains. Nunan (1989) defines that speech modification is teacher talk that is modified by the teacher to make the students more understand at what she has talked. If the students understand what the teacher talks and wants, what they must do, they will be confident to communicate in the classroom. It will motivate them to use the foreign language in the classroom because they know what the teacher wants and what they must do.

The last technique is cooperative learning, work in group. Group work can create students-students interaction. The teacher's role at this strategy is as a

facilitator. The teacher should give the students diverse tasks so that the students interact with the others in group work. The diverse task will make them responsible to share information that they know to the others. Three types of group that can be used to create students-students interaction include jigsaw, one stay to stay, and numbered head together and think pair share. Work in group will make them feel more comfortable to say their ideas in using the foreign language because they have known the quality of their friends. Jones and Jones (2008) maintain that working in the groups will make the students tolerate each other toward their strength and weakness to achieve one purpose.

Besides, to make the students want to participate at the classroom interaction, the teacher has to use some strategies. Dagarin (2004) asserts that three strategies to make the students involve in the classroom interaction including asking questions, body language, and topics. These strategies are for making the students involve in the classroom interaction.

The first strategy is asking question. Questions will make the students involve in the classroom interaction because most of them think that the questions is important for them. Ur (1996) reports on eleven reasons for asking questioning including to provide a model for language or thinking; to find out something from the learners (facts, ideas, opinions); to check or test understanding, knowledge or skill; to get learners to be active in their learning; to direct attention to the topic being learned; to inform the class via the answers of the stronger learners; to provide weaker learners with an opportunity to participate; to stimulate thinking; to get learners to review and practice previously learn material; to encourage self-

expression; and to communicate to learners that the teacher is genuinely interested in what they think.

The second strategy is body language. The body language will make the students talk since the teacher use their body movement to guess what the teacher mean. Body language is nonverbal signals that are powerful and more genuine. The teacher teaches some subjects, for instance, that are used in grammar. When the teacher points out one student who sits at the backside, the students say “you”. Besides that, when the teacher says points out themselves, the students say “I”. In addition, when the teacher moves their body, the students say “we”, etc. It means that body language give chance to the students know when they have to talk or silent. Gregersen (2005) states that body language will affect the students to involve in the classroom interaction since body language help the students interpret what the teacher mean and the teachers’ purpose.

The last strategy is topic. The teacher has to consider some topics that are interesting for them since most of the students have the same interested topics as they are the same age. The interesting topic that is relevant form them will make them follow some activities actively and purposefully. It will make them involving in classroom interaction.

Based on the explanation above, the researcher concludes that classroom interaction will occur if the teacher asks the students to talk. Besides that, the teacher has to use some strategies to make the students talking in order to the classroom interaction is from teacher and students.

2.1.5. Flander Interaction Analysis Categories System (FIACS) Technique

Flanders' interaction Analysis is developed by Flander (1970 cited in Subudhi 2011) that is coding categories of interaction analysis to know the quantity of verbal interaction in the classroom. This technique is one of important techniques to observe classroom interaction systematically. The Flander Interaction Analysis Category System (FIACS) records what teachers and students say during teaching and learning process. Besides that, the technique allows the teachers see exactly what kind of verbal interaction that they use and what kind of response is given by the students.

FIACS provides ten categories to classify classroom verbal interaction including into three groups, namely, teacher, students talk, and silence or confusion. Each classroom verbal interaction will be coded at the end of three seconds period. It means that at three seconds interval, the observer will decide which best category of teacher and students talk represents the completed communication. These categories will be put into columns of observational sheet to preserve the original sequence of events after the researcher do plotting the coded data firstly. Tichapondwa (2008) argues that Flanders' interaction Analysis is for identifying, classifying, and observing classroom verbal interaction. It means that Flanders' interaction Analysis help the researcher to identify classroom interaction during teaching and learning process in classifying the interaction into the teacher talk, students talk, and silence.

Here is a pattern of classroom interaction by Flander (1970 cited in Hai and Bee 2006):

Table 1. An observation tally sheet's guidance

No.	Flander's Interaction Analysis Categories (FIAC)
Teacher Talk	
A.	Indirect Talk
1.	Accepts Feelings
	<ul style="list-style-type: none"> In this category, teacher accepts the feelings of the students. He feels himself that the students should not be punished for exhibiting his feelings. Feelings may be positive or negative.
2.	Praise or Encouragement
	<ul style="list-style-type: none"> Teacher praises or encourages student action or behavior. When a student gives answer to the question asked by the teacher, the teacher gives positive reinforcement by saying words like 'good', 'very good', 'better', 'correct', 'excellent', 'carry on', etc.
3.	Accepts or Uses ideas of Students
	<ul style="list-style-type: none"> It is just like 1st category. But in this category, the students ideas are accepted only and not his feelings. If a student passes on some suggestions, then the teacher may repeat in nutshell in his own style or words. The teacher can say, 'I understand what you mean' etc. Or the teacher clarifies, builds or develops ideas or suggestions given by a student.
4.	Asking Questions
	<ul style="list-style-type: none"> Asking question about content or procedures, based on the teacher ideas and expecting an answer from the students. Sometimes, teacher asks the question but he carries on his lecture without receiving any answer. Such questions are not included in this category.
B.	Direct talk
5.	Lecturing /Lecture
	<ul style="list-style-type: none"> Giving facts or opinions about content or procedure expression of his own ideas, giving his own explanation, citing an authority other than students, or asking rhetorical questions
6.	Giving Directions
	<ul style="list-style-type: none"> The teacher gives directions, commands or orders or initiation with which a student is expected to comply with: <ul style="list-style-type: none"> Open your books. Stand up on the benches. Solve 4th sum of exercise 5.3.

7.	Criticizing or Justifying Authority
	<ul style="list-style-type: none"> ▪ When the teacher asks the students not to interrupt with foolish questions, then this behavior is included in this category. ▪ Teachers ask 'what' and 'why' to the students also come under this category. ▪ Statements intended to change student behavior from unexpected to acceptable pattern ▪ Bawling someone out ▪ Stating why the teacher is doing what he is doing
	Student Talk
8.	Student Talk Response
	<ul style="list-style-type: none"> ▪ It includes the students talk in response to teacher's talk ▪ Teacher asks question, student gives answer to the question.
9.	Student Talk Initiation
	<ul style="list-style-type: none"> ▪ Talk by students that they initiate. ▪ Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought like asking thoughtful questions; going beyond the existing structure.
	10. Silence or Pause or Confusion
	<ul style="list-style-type: none"> ▪ Pauses, short periods of silence and period of confusion in which communication cannot be understood by the observer.

Flander (1970 cited in Hai and Bee 2006)

2.1.6. Strength of FIACS Technique

As a tool for analysis classroom interaction in the teaching and learning process, the Flander system has some strength. According to Evans (1970), there are two strength of using Flander. First of all, it provides an objective method for distinguishing teacher verbal interaction and characteristic since it represents an effort to count teacher verbal interaction. Last, it describes teaching and learning process.

A FIACS technique covers interaction between teacher and students. Therefore, through FIACS, the researcher will know the quantity of verbal

interaction in the classroom. Inamullah et al. (2008) maintains that FIAC can change the teacher's teaching style. It means that when the teacher knows how much they spend their time talking in the classroom, they will know their quality in making the students active in the classroom. Making the students participate at the classroom interaction, the teacher has to create and design materials that make classroom interaction is dominant by students since students-centered is really required in Communicative Language Teaching (CLT).

Moreover, the effect of FIACS feedback on the verbal interaction of teacher focuses on their use of certain verbal interaction. It means that teachers who received feedback will be different in their use of certain verbal interaction. According to Flander (1970 cited in Hai and Bee 2006), teacher who received FIACS feedback will use more praise, accept and clarify student ideas, use more indirect talk, use more positive reinforcement after teacher-initiated student talk, use less corrective feedback, criticize students less, ask more questions, use less lecture method, give fewer directions and less teacher-initiated talk. It means that it will be different from those who did not receive feedback.

Based on the explanation above, the researcher concludes that through counting classroom interaction by using FIACS technique, there are some advantages for the teachers. For the teachers, they will improve their teaching behavior including they will more use praises, clarify what the students say, ask questions, give direction, etc at the classroom.

2.2. Previous Study

There are some researchers that have been done researches about FIACS technique in analyzing classroom interaction. The first researcher is Nugroho (2009). He conducted a research entitled “Interaction in English as a Foreign Language Classroom (A Case of Two State Senior High Schools in Semarang in the Academic Year 2009/2010)”. The main objectives of his research were to find out the amount of time spent by teacher (TTT) and by students (STT), the characteristics of classroom interaction in two senior high schools, and the relation between statement of the problem one and two using FIAC. The subject of the research was students and teachers of SMAN 3 Semarang and SMAN 6 Semarang in the academic year 2009/2010. The researcher found that 1) English teaching and learning process in both senior high schools were teacher centered, 2) the general characteristics of classroom interaction encompassed content cross, student participation, student talking time (STT), indirect ratio which was differentiated by the different number of percentage, teacher talking time (TTT), teacher support, teacher control and period of silence, and 3) characteristic of classroom interaction was significantly influenced by the type of talking time performed by teachers and students during the interaction.

The last researcher is Nurmasitah (2010). She conducted a research entitled “A Study of Classroom Interaction Characteristics in a Geography Class Conducted in English: The Case at Year Ten of An Immersion Class in SMA N 2 Semarang”. The objectives of her research were to explore the classroom interaction characteristics and to find out whether or not the English classroom activities as used to teach at year ten of Immersion Class at SMAN 2 Semarang have met Walberg’s teaching effectiveness. The subject of the research

was 30 students and one teacher at year ten of immersion class at SMAN 2 Semarang. She used three instruments to analyze the data; Flanders Interaction Analysis (FIA) to identify the classroom interactions, teaching effectiveness elements based on the Walberg's theory, and Likert Scale to measure the students' opinion results from questionnaire. The researcher found that 1) the most dominant characteristic in immersion classroom interaction was the content cross (that most of the teaching-learning time was devoted to questions and lectures by the teacher), meaning that most of the teaching-learning time was devoted to questions and lectures by the teacher, 2) the teacher spent 57.43% of the teaching-learning time, while the students spent 22.20% of the teaching-learning time that showed that the students were active enough in the classroom interaction, meaning that the students were active enough in the classroom interaction, and 3) the teaching effectiveness elements used in the classroom were in the form of academic learning time, use of reinforcement, cues and feedback, co-operative learning, classroom atmosphere, higher order questions, advance organizers, direct instruction, indirect teaching, and the democratic classroom. In addition, based on the students' opinion, the teaching-learning process in the classroom was good enough, however some students felt uncomfortable with the classroom atmosphere and the teacher's discipline of time

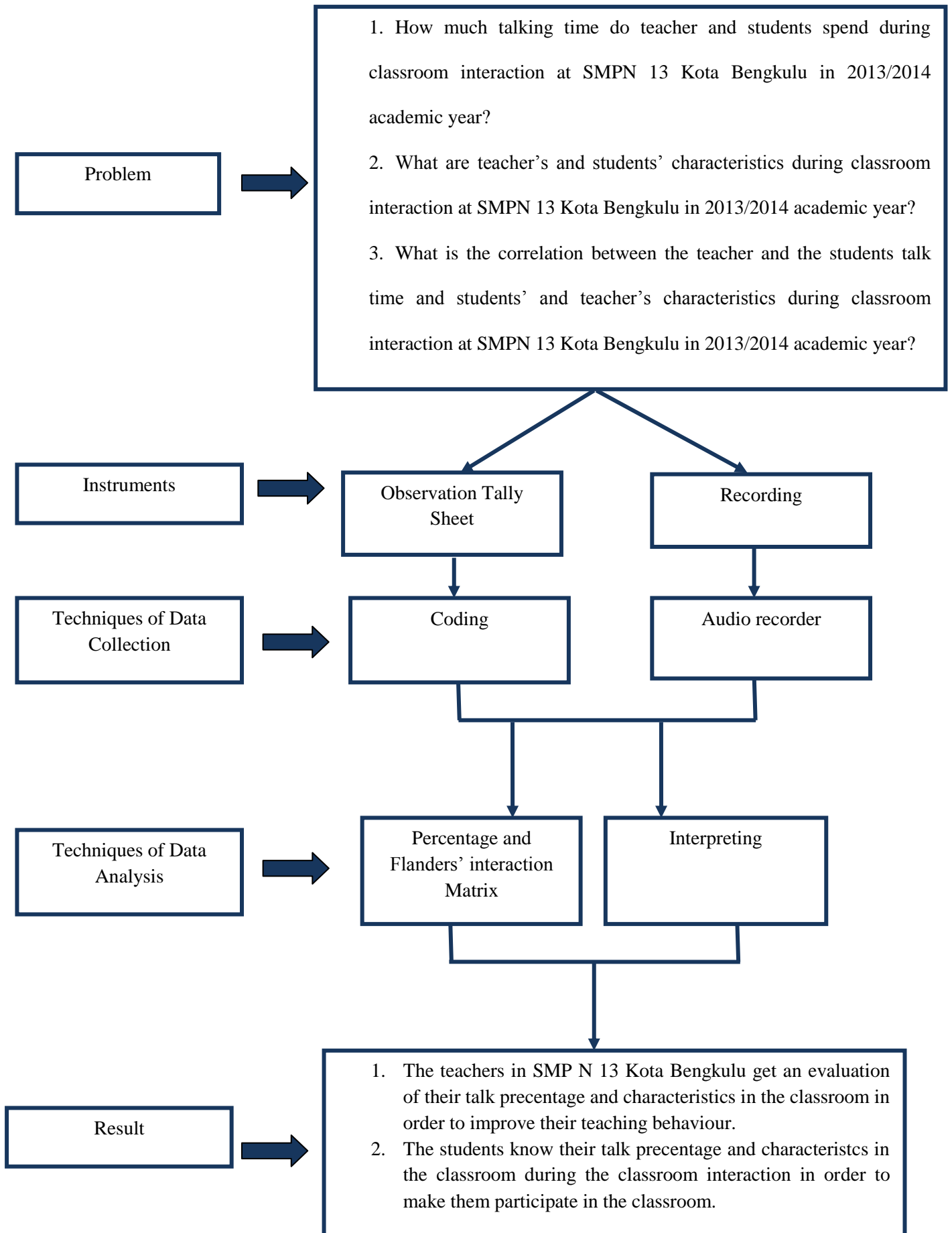
Moreover, there are two differences between this research and the previous researches. For the first difference is the researcher will do the research in junior high school while both the first researcher did two senior high schools and the second researcher did in an immersion class in which Geography class. The last difference is the researcher does not use teaching effectiveness elements based on

the Walberg's theory, and Likert Scale to measure the students' opinion results from questionnaire in analyzing the data that is different instruments from the second researcher.

2.3. Conceptual Framework

According to the related theories and previous studies of this research, the researcher makes a conceptual framework to make easier to do.

Chart 1. Conceptual Framework



Based on the conceptual framework above, the researcher wants identifying (1) how much talking time do teacher and students spend during classroom interaction in SMPN 13 Kota Bengkulu? (2) what are students' and teacher's characteristics during classroom interaction in SMPN 13 Kota Bengkulu? (3) what is the correlation between the teacher and the students talk time and students' and teacher's characteristics during classroom interaction in SMPN 13 Kota Bengkulu?

To find out the three questions, the researcher use observation tally sheet to get real data since the researcher will put out code on the particular teacher or students talk during the teaching and learning process, and recording to record the whole part of teaching and learning process in order to get the teacher and students talk during the process.

After that, the researcher will analyze observation tally sheet and recording. In analyzing the observation tally sheet, the researcher will calculate the teacher and students talk in the observation sheet by using Flander's formulates, and identify students' and teacher's characteristics during classroom interaction by referring to the Flander's interaction Matrix. Meanwhile, in analyzing the observation tally sheet and recording, the researcher will analyze the correlation between the teacher and the students talk time and students' and teacher's characteristics. It means that the researcher will interpret the correlation between the teacher and the students talk time and students' and teacher's characteristics to find out that whether the amount of teachers and students talk during teaching and learning process contribute significant influence to the students' and teacher's characteristics or not.

Moreover, after the researcher analyze the data above, the result that the researcher expect including first, the teachers in SMP N 13 Kota Bengkulu get an evaluation of their talk precentage and characteristics in the classroom in order to improve their teaching behavior. Second, the students know their talk precentage and characteristics in the classroom during the classroom interaction in order to make them participate in the classroom.

CHAPTER III

METHODOLOGY

3.1. Design of the Research

The design of this research was observation. According to Kumpulainen et al. (2009), classroom interaction is suitable as observation that is for categorizing into which all relevant talk. It meant that the researcher would observe teacher and students talk during teaching and learning process. In order to get expected data, the researcher used Flander's Interaction Analysis Categories (FIAC). Through Flander's Interaction Analysis Categories (FIAC), the researcher described the result of this research by showing the percentage of teacher's and students' talk; students' and teacher's characteristics; and the correlation between the teacher and the students talk time and students' and teacher's characteristics during classroom interaction.

3.2. Population and Sample

3.2.1. Population

Population of this research was all English teachers who taught at seventh and eighth grade of SMPN 13 Kota Bengkulu. It is located on Jalan Soekarno-Hatta, Kota Bengkulu. The subjects of this research were all English teachers who had been teaching more than five years. Because they had been teaching more than five years, they could make the students participate more at the classroom interaction.

3.2.2. Sample

At the SMPN 13 Kota Bengkulu, there were four teachers who teach seventh and eighth grades. But the researcher had an obstacle to involve all teachers in this research. It was because two of them will be retired and another never comes to school. Therefore, the sample of this research was two teachers who teach seventh and eighth grades. The researcher chose one class for each teacher. Besides that, they would be observed seven times in different classes. Thus, the total of observation was 14 times.

Further, to observe the teachers' and the students' talk, the researcher was helped by a co-researcher in order to avoid subjective data. The co-researcher would help the researcher to put a coded number of the teacher, students talk, and silence that occurred during the teaching and learning process.

3.3. Instruments of the Research

In this research, the researcher used two instruments that included observation tally sheet and recording (audio recording). Those instruments will be explained bellow:

3.3.1. Observation Tally Sheet

Through the observation tally sheet, the researcher got expected data since the researcher would put out code on the particular teacher or students talk during the teaching and learning process. Before the researcher filled the observation tally sheet, the researcher had to understand observation tally sheet's guidance that included list of Flander's Interaction Analysis Categories (FIAC) that the

researcher adapted from Flander (1970 cited in Hai and Bee 2006). Here is the observation tally sheet's guidance:

Table 1. An observation tally sheet's guidance

No.	Flander's Interaction Analysis Categories (FIAC)
Teacher Talk	
A.	Indirect Talk
1.	Accepts Feelings
	<ul style="list-style-type: none"> ▪ In this category, teacher accepts the feelings of the students. ▪ He feels himself that the students should not be punished for exhibiting his feelings. ▪ Feelings may be positive or negative.
2.	Praise or Encouragement
	<ul style="list-style-type: none"> ▪ Teacher praises or encourages student action or behavior. ▪ When a student gives answer to the question asked by the teacher, the teacher gives positive reinforcement by saying words like 'good', 'very good', 'better', 'correct', 'excellent', 'carry on', etc.
3.	Accepts or Uses ideas of Students
	<ul style="list-style-type: none"> ▪ It is just like 1st category. But in this category, the students ideas are accepted only and not his feelings. ▪ If a student passes on some suggestions, then the teacher may repeat in nutshell in his own style or words. ▪ The teacher can say, 'I understand what you mean' etc. or the teacher clarifies, builds or develops ideas or suggestions given by a student.
4.	Asking Questions
	<ul style="list-style-type: none"> ▪ Asking question about content or procedures, based on the teacher ideas and expecting an answer from the students. ▪ Sometimes, teacher asks the question but he carries on his lecture without receiving any answer. Such questions are not included in this category.
B.	Direct talk
5.	Lecturing /Lecture
	<ul style="list-style-type: none"> ▪ Giving facts or opinions about content or procedure expression of his own ideas, giving his own explanation, citing an authority other than students, or asking rhetorical questions
6.	Giving Directions
	<ul style="list-style-type: none"> ▪ The teacher gives directions, commands or orders or initiation with which a student is expected to comply with:

	<ul style="list-style-type: none"> ▪ Open your books. ▪ Stand up on the benches. ▪ Solve 4th sum of exercise 5.3.
7.	Criticizing or Justifying Authority
	<ul style="list-style-type: none"> ▪ When the teacher asks the students not to interrupt with foolish questions, then this behavior is included in this category. ▪ Teachers ask 'what' and 'why' to the students also come under this category. ▪ Statements intended to change student behavior from unexpected to acceptable pattern ▪ Bawling someone out ▪ Stating why the teacher is doing what he is doing
	Student Talk
8.	Student Talk Response
	<ul style="list-style-type: none"> ▪ It includes the students talk in response to teacher's talk ▪ Teacher asks question, student gives answer to the question.
9.	Student Talk Initiation
	<ul style="list-style-type: none"> ▪ Talk by students that they initiate. ▪ Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought like asking thoughtful questions; going beyond the existing structure.
	10. Silence or Pause or Confusion
	<ul style="list-style-type: none"> ▪ Pauses, short periods of silence and period of confusion in which communication cannot be understood by the observer.

Flander (1970 cited in Hai and Bee 2006)

Because at each three seconds might involve some categories both teacher and students talk, there were some rules for deciding which one the best category should be put out code consistencely. These rules are as recommended by Flander (1970 cited in Sigh et al. 2008) had to be followed by the researcher as follow:

Table 2. some rules for deciding which catagory should be put code consistencely

Rule 1	When it is not certain in which of two or more categories a statement belongs, choose the category that is numerically farthest from the category 5. For e.g., if an observer is not sure whether it is 2 or 3 then choose 2. If in doubt between 5 and 7, he chooses 5.
Rule 2	The observer should not involve his personal viewpoint. If a teacher attempts to be clever, students see his statements as critics of students; the observer sues category 7

Rule 3	If more than one category is active in a span of 3 seconds, and then all the categories should be recorded. If after 3 seconds, no category changes, then the same serial number should be repeated in the next 3 seconds.
Rule 4	If the time period of silence exceeds 3 seconds, it should be recorded under the category No.10
Rule 5	When teacher calls a child by name, the observer is supposed to record a 4 th category.
Rule 6	When the teacher repeats the student's answer and the answer is a correct, that is recorded as a category No. 2. This tells the student that he has the right answer and therefore functions as praise or encouragement.
Rule 7	When a teacher listens to a student and accepts his ideas for a discussion, then this behavior belongs to category No. 3.
Rule 8	The words "All is ok", "yes", "yah", "hum", "alright", etc belong to the category No. 2. (Encouragement)
Rule 9	If a teacher jokes without aiming at any students, this behavior belongs to the category No. 2. But if he makes any joke aiming at some particular students, then it belongs to the category No. 7.
Rule 10	When all the students respond to a very small question collectively, then the serial number of category 8 is recorded.

Flander (1970 cited in Singh et al. 2008)

In addition, the researcher used observation tally with a constant time to know each teacher and students talk at a certain time in order to calculate how the teacher and students talk in the classroom. Because FIAC suggest that at the end of each three seconds interval, the researcher had to decide which one of the best category of teacher and students talk represents the communication at each three seconds. It was called as plotting the coded data. According to Tichapondwa (2008), the researcher has to code the teacher and students talk at three seconds intervals when the researcher uses FIAC technique. Here is the observation tally sheet that is for putting out code at the end of each three seconds interval after do plotting the coded data firstly:

Here is the observation tally sheet that is for putting out code at the end of each three seconds interval after do plotting the coded data firstly:

Table 3. Matrix of Flander interaction analysis

Day/Date :

Teacher's Name :

Class :

Meeting :

Material :

			Teacher indirect talk			Teacher direct talk				Student talk			
			Accepts feelings	Praise or encouragement	Accepts or uses ideas of students	Asking questions	Lecturing/lecture	Giving directions	Criticizing or justifying authority	Student response	Student talk initiation	Silence or pause or confusion	
			1	2	3	4	5	6	7	8	9	10	Total
Teacher indirect talk	Accepts feelings	1											
	Praise or encouragement	2											
	Accepts or uses ideas of students	3											
Teacher direct talk	Asking questions	4											
	Lecturing/lecture	5											
	Giving directions	6											
	Criticizing or justifying authority	7											
Student talk response	Student talk response	8											
	Student talk initiation	9											
	Silence or pause or confusion	10											
	Total												

Flander (1970 cited in Myers 1970)

The observation tally sheet above was written in 10 x 10 table meaning that 10 (rows) x 10 (columns) table for determining the specific aspects of the classroom interaction. In addition, it indicated what form a pair of categories. The row of the matrix represented the first number and the columns represent the second number.

3.3.2. Recording

The researcher used audio recording to make the data accurately. The recording helped the researcher to know types of the teachers and students talk during the learning and teaching process at the trait classroom.

3.4. Techniques of Data Collection

The researcher collected the data of this research from April 7th, 2014 until May 10th, 2014. The data was collected by observing seven times class meeting by using two methods in collecting the data including observation tally sheet, and recording (audio recording). In those activities, the researcher was helped by co-researcher. It was done to make the research data became more objective. Through observation, the researcher could observe what the teacher and students did and talked in classroom.

3.4.1. Observation Tally Sheet

The researcher put out code on the particular teachers and students talk that was on the Flander's Interaction Analysis Categories (FIAC)'s observation tally sheet during teaching and learning process after the reseacher did plotting the coded data firstly. The researcher put out code at the end of each three seconds interval in order to get expected data.

Here is an illustration of how to put a code of classroom verbal interaction based on the observation tally sheet's guidance and the rules of Flander's code system. The illustration could be seen as the follows:

Table 4. An illustration of how to put a code of classroom verbal interaction

Classroom verbal interaction	Recorded as	Explanation
Teacher: Open page 47	6	The teacher gives an order to the students to open page 47. It is as teacher direct talk that is giving direction recorded as 6
Students: The students are silence	10	The students are in short period of silence because they do not know what they have to do. It is as silence or pause or confusion recorded as 10
Teacher: Why are you confused when I said open page 47?	7	The teacher ask "why" to criticize why the students silence. It is as teacher direct talk that is criticizing by asking "why" recorded as 7.
Then the teacher open page 47 by giving clue 4 and 7	5	The teacher gives explanation to the students by using clue 4 and 7 to make the students understand what he has talked. It is as teacher direct talk that is lecturing recorded as 5.
The teacher accepts the students' feeling since they do not understand number 47	1	The teacher accepts the students feeling where he feels that the students should not be punished. It is as teacher indirect talk recorded as 1.
Teacher: What do you think about the topic?	4	The teacher ask the students about topic that is in page 47. It is as teacher direct talk that is asking questions recorded as 4
Students: The students give their opinion about the trait topic	8	The students response to the teacher's talk. It is as students talk response recorded as 8
Teacher: Have you ever gone by the plane?	4	The teacher ask the students about the content of the topic that is in page 47. He expects an answer from the students. It is as teacher direct talk recorded as 4

Adopted from Singh et al. 2008

The observation recorded, 6, 10, 7, 5, 1, 4, 8, 4, was called as plotting the coded data. In addition, the beginning and end of the coding should have the same number of the categories. It is the tradition of adding number 10 in the beginning and at the end. Hence, the above number will be written in this way 10, 6, 10, 7, 5, 1, 4, 8, 4, 10. Then, to fill the observational sheet below, the researcher had to plot the number recorded firstly by one pair is marked at a time, as the follow:

	10	1 st pair
2 nd pair	6	
	10	3 rd pair
4 th pair	7	
	5	5 th pair
6 th pair	1	
	4	7 th pair
8 th pair	8	
	4	
	10	9 th pair

Based on the plotting the coded data above, the sequence of the pair including: (10, 6), (6, 10), (10, 7), (7, 5), (5, 1), (1, 4), (4, 8), (8, 4), (4, 10). Based on the sequence of pair, in the first pair (10, 6) shows that the number 10 represents row and the number 6 represents column. In addition, the first pair represents one point of the matrix and other. So, each column and row represents one of the ten categories of Flander's coding system. Here is the example of observation tally sheet that is for putting out code at the end of each three seconds interval based on the plotting the coded data above:

Table 3.1. Simulated matrix of Flander interaction

Day/Date :

Teacher's Name :

Class :

Meeting :

Material :

			Teacher indirect talk			Teacher direct talk				Student talk			
			Accepts feelings	Praise or encouragement	Accepts or uses ideas of students	Asking questions	Lecturing/ lecture	Giving directions	Criticizing or justifying authority	Student talk response	Student talk initiation	Silence or pause or confusion	
			1	2	3	4	5	6	7	8	9	10	Total
Teacher indirect talk	Accepts feelings	1											1
	Praise or encouragement	2											0
	Accepts or uses ideas of students	3											0
Teacher direct talk	Asking questions	4											2
	Lecturing/ lecture	5											1
	Giving directions	6											1
	Criticizing or justifying authority	7											1
Student talk response	Student talk response	8											1
	Student talk initiation	9											0
	Silence or pause or confusion	10											2
		Total	1	0	0	2	1	1	1	1	0	2	9 (N)

Flander (1970 cited in Myers 1970)

3.4.2. Recording

The researcher recorded the whole part of teaching and learning process in order to get the teacher and students talk during the process. In recording, the researcher was helped by a co-researcher to put code on the particular the teachers and students talk based on the Flander's Interaction Analysis Categories (FIAC)'s observation tally sheet's guidance and rules. Because there were two observation tally sheet that were from researcher and co-researcher, the realibility of the observation tally sheet was calculated by using Pearson Product Moment Correlation.

Futhermore, in recording, the researcher recorded teacher's talk, students' talk, and silence that based on the observation tally sheet's guidance adapted from Flander (1970 cited in Hai and Bee 2006) as the follows:

- Teacher's talk consists of direct and indirect talk. The indirect talk includes teacher accepts the students' feeling and ideas; praises or encourages student action or behavior; repeats, clarifies, builds or develops ideas or suggestions given by a student; asks question about content or procedures, based on the teacher ideas and expecting an answer from the students. Meanwhile, the direct talk includes the teacher gives facts or opinions about content or procedure expression of his own ideas, gives his own explanation or citing an authority other than a students; gives directions, commands or orders or initiation; and asks the students not to interrupt with foolish questions.

- Students talk consist of direct talk that includes the students talk in responding to teacher's talk; and expressing their own ideas; initiating a new topic; freedom to develop opinions and a line of thought like asking thoughtful questions.
- Silence includes pauses, short periods of silence and period of confusion in which communication cannot be understood by the observer.

3.5. Procedure of the Research

The procedures of this research would be as the follows:

1. The researcher and co-researcher came to the class and sat at the backside
2. The researcher prepared audio recording and guidance and rules of Flander interaction analysis.
3. The researcher put code on the particular the teachers and students talk in order to get expected data.
4. The researcher put the plotting of the coded data into matrix of Flander interaction analysis.
5. The researcher conducted the observation at seven meetings for each teachers.
6. The researcher calculated the teacher and students talk during teaching and learning process by Flander's formulas
7. The researcher identified students' and teacher's characteristics by referring to the Flander's interaction matrix to identify the teachers' and students' characteristics
8. The researcher analyzed the correlation between the teacher and the students talk time and students' and teacher's characteristics that they got.

3.6. Techniques of Data Analysis

The data analysis was conducted by the researcher after collecting the data.

3.6.1. Pearson Product Moment Correlation

To investigate whether the observation tally sheet that was from researcher and co-researcher was any correlation or not, the researcher determined the correlation coefficient by using the formula for the correlation coefficient called Pearson Product Moment Correlation using raw score data as recommended by Arikunto (2010) as the follows:

$$r_{xy} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{n.\sum X^2 - (\sum X)^2\} \cdot \{n.\sum Y^2 - (\sum Y)^2\}}}$$

Where:

r_{xy} : Correlation of coefficient

X: Score in the distribution of variable X

Y: Score in the distribution of variable Y

N: Sample

3.6.2. Flander's formulates

After the researcher got data from observation sheet of Flander interaction analysis, the researcher calculated how much the teacher and students talk time in classroom interaction by using Flander's formulates (1970, cited in Singh et al. 2008 and Nugroho 2009) in order to getting expected data. The researcher used it to find out the

percentage of teachers and students talk during classroom interaction. Here are the formulas:

1. Teacher Talk Ratio / Percentage of Teacher Talk (TT)

The tallies of first seven categories are added and divided by the total tallies of the matrices (N) and hence the percentage can be calculated.

$$TT = \frac{C1+C2+C3+C4+C5+C6+C7}{N} \times 100\%$$

2. Indirect Teacher Talk Ratio (ITT)

- It indicates teacher actions in encouraging and supporting students' participation.
- Its percentage can be calculated by adding the tallies of the first four categories and dividing by the total tallies of the matrix (N)

$$ITT = \frac{C1+C2+C3+C4}{N} \times 100\%$$

3. Direct Teacher Talk Ratio (DTT)

- It indicates the teacher actions restricting student participation.
- In this ratio, the tallies of 5th, 6th and 7th categories are added and divided by “N” to calculate the percentage.

$$DTT = \frac{C5+C6+C7}{N} \times 100\%$$

4. Students' Talk Ratio/Percentage of Students Talk (PT)

- It indicates verbal activities of students in response to the teacher.
- In this ratio, the tallies of 8th and 9th categories are added and divided by "N to calculate the percentage.

$$PT = \frac{C8+C9}{N} \times 100\%$$

5. Silence or Confusion Ratio (SC)

$$SC = \frac{C10}{N} \times 100\%$$

6. Indirect and Direct Ratio (I/D)

$$\frac{I}{D} = \frac{C1+C2+C3+C4}{C5+C6+C7} \times 100\%$$

3.6.3. Flander's Interaction Matrix

The researcher identified students' and teacher's characteristics during classroom interaction by referring to the Flander's interaction Matrix. The students' and teacher's characteristics appeared after the researcher put code on the particular the teachers and students talk in the observation tally sheet since some areas in the tally sheet will have tallies than others. The areas gave information who was talking and what kind of talking is talking place. Here was the analyzing rules of Flander's observation tally sheet to

identify students' and teachers' characteristics that is recommended by Flander (1970 cited in Li et al. 2011):

- a. [Total] The cells in the total row show how much the teacher's and students' talking time and silence that indicate their characteristics at the classroom interaction
- b. [Row 4-5, Column 4-5] show how much the teacher asks question and lectures in the classroom.
- c. [Row 1-3, Column1-3] show how much the teacher uses of acceptance and praise that indicate an encouraging teaching style. The teacher's characteristic is teacher support.
- d. [Row 8-9, Column8-9] indicate how much the students participate at the classroom interaction that is expected being a frequently event in a class with more interactions.
- e. [Row 6-7, Column 6-7] indicate how much the teacher gives direction and criticizes the students' behavior. The teacher's characteristic is teacher control.

f. Here is Flander's interaction Matrix to identify the teachers' and students' characteristics:

g.

h. Table 4. Flander's interaction Matrix to identify the teachers' and students' characteristics

			Teacher indirect talk			Teacher direct talk				Student talk						
			Accepts feelings	Praise or encouragement	Accepts or uses ideas of students	Asking questions	Lecturing/ lecture	Giving directions	Criticizing or justifying authority	Student talk response	Student talk initiation	Silence or pause or confusion				
			1	2	3	4	5	6	7	8	9	10	Total			
Teacher indirect talk	Accepts feelings	1	Teacher Support			Content Cross					Students participation					
	Praise or encouragement	2														
	Accepts or uses ideas of students	3														
Teacher direct talk	Asking questions	4														
	Lecturing/ lecture	5														
	Giving directions	6							Teacher control							
	Criticizing or justifying authority	7														
Student talk response	Student talk response	8														
	Student talk initiation	9														
	Silence or pause or confusion	10														
		Total														

i. Flander (1970 cited in Li et al. 2011)

3.6.4. Theory of Gay and Airasian

The researcher analyzed the correlation between the teacher and the students talk time and students' and teacher's characteristics that she got. The reason why the researcher wanted to analyze the correlation was the researcher wanted to know that whether the amount of teachers and students talk during teaching and learning process contributed significant influence to the students' and teacher's characteristics or not.

Moreover, to analyze from the observation tally sheet and recording, there were five steps recommended by Gay and Airasian (2000), including data managing, reading and memoing, describing, classifying, and interpreting as the follows:

a. Managing Data

Data that was organized by the research was from recording (transcript of teacher's and students' activity) and observation tally sheet.

b. Reading and Memoing

The step that was conducted by the researcher was the researcher read the result of observation tally sheet. Besides that, the researcher made notes while the researcher was reading the observation tally sheet and recording (transcript of teacher's and students' activity).

c. Describing

The result of observation tally sheet, recording, and note taking that the researcher did in the previous stage was described by the researcher clearly at this stage.

d. Classifying

The researcher classified the result of observation tally sheet, recording and note taking into some categories orderly.

e. Interpreting

The researcher interpreted the result of the data into easy word.